

What is claimed is:

1 1. A method of handling operation in a multi-threaded processing system, comprising:  
2 determining if a stalled operation of a first thread is due to a loading of data from a  
3 memory device; and  
4 flushing an instruction from said first thread from a pipeline of said processing system  
5 when data is to be loaded from said memory device before executing said instruction.

1 2. The method of claim 1 wherein said memory device is system memory coupled to a  
2 memory bus.

1 3. The method of claim 1 further comprising:  
2 marking said instruction as a miss.

1 4. The method of claim 3 further comprising:  
2 rescheduling said instruction to be executed in said pipeline.

1 5. A method of handling operation in a multi-threaded processing system, comprising:  
2 determining if a stalled operation of a first thread is due to a loading of data from a  
3 memory device; and  
4 flushing an instruction from said first thread from a pipeline of said processing system  
5 when data is to be loaded after a predetermined number of clock cycles from said memory device  
6 before said instruction can be executed.

1   6.     The method of claim 5 wherein said memory device is system memory coupled to a  
2   memory bus.

1   7.     The method of claim 6 further comprising:  
2               marking said instruction as a miss.

1   8.     The method of claim 7 further comprising:  
2               rescheduling said instruction to be executed in said pipeline.

1   9.     The method of claim 8 further comprising:  
2               executing said instruction when data is loaded from said memory device.

1   10.    A processing system comprising:  
2               a scheduler to pass instructions from first thread and second threads to an execution  
3               pipeline; and  
4               pipeline control logic coupled to said execution pipeline to determine if a stalled  
5               execution of a first thread is due to a loading of data from a memory device and to flush an  
6               instruction from said first thread from said execution pipeline when data is to be loaded from  
7               said memory device before said instruction can be executed.

1   11.    The processing system of claim 10 wherein said pipeline control logic is to mark said  
2   instruction as a miss.

1       12.     The processing system of claim 10 further comprising:  
2                  an exception and retirement logic coupled to said execution pipeline.

1       13.     The processing system of claim 12 wherein said instruction marked as a miss is to be  
2       detected by said exception and retirement logic.

1       14.     The processing system of claim 13 further comprising:  
2                  a fetch unit to provide said instruction to said scheduler.

1       15.     The processing system of claim 14 wherein said pipeline control logic is to cause said  
2       instruction to be executed when data is loaded from said memory device.

1       16.     A computing system comprising:  
2                  a memory bus coupled to system memory; and  
3                  a processing system coupled to said memory bus, said processing system including  
4                          a scheduler to pass instructions from first thread and second threads to an  
5                          execution pipeline; and  
6                          pipeline control logic coupled to said execution pipeline to determine if a stalled  
7       execution of a first thread is due to a loading of data from system memory and to flush an  
8       instruction from said first thread from said execution pipeline when data is to be loaded  
9       from said system memory before said instruction can be executed.

1 18. The computing system of claim 10 wherein said processing system further includes  
2 an exception and retirement logic coupled to said execution pipeline.

1 19. The computing system of claim 18 wherein said instruction marked as a miss is to be  
2 detected by said exception and retirement logic.

1 20. The computing system of claim 19 wherein said processing system further includes  
2 a fetch unit to provide said instruction to said scheduler.

1 21. The computing system of claim 20 wherein said pipeline control logic is to cause said  
2 instruction to be executed when data is loaded from said system memory.